

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: **Q83564**

**Akira IDENO, et al.**

Appln. No.: National Stage Entry based on PCT/JP2003/008020

Confirmation No.: Not yet assigned

Group Art Unit: Not yet assigned

Filed: **October 14, 2004**

Examiner: Not yet assigned

For: **EXPRESSION VECTOR, HOST, FUSED PROTEIN, PROCESS FOR  
PRODUCING FUSED PROTEIN AND PROCESS FOR PRODUCING  
PROTEIN**

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 C.F.R. §§ 1.97 and 1.98**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicant hereby notifies the U.S. Patent and Trademark Office of the documents which are listed on the attached PTO/SB/08 A & B (modified) form and/or listed herein and which the Examiner may deem material to patentability of the claims of the above-identified application.

A copy of an International Search Report in a counterpart application is submitted herewith. The USPTO should receive copies of the references cited in the International Search Report for the International Bureau. Applicant will furnish any missing references upon request.

The present Information Disclosure Statement is being filed: (1) No later than three months from the application's filing date; (2) Before the mailing date of the first Office Action on the merits (whichever is later); or (3) Before the mailing date of the first Office

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INFORMATION DISCLOSURE STATEMENT  
National Stage Entry based on PCT/JP2003/008020

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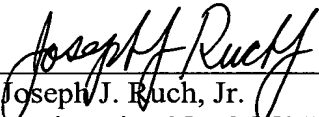
Action after filing a request for continued examination (RCE) under §1.114, and therefore, no Statement under 37 C.F.R. § 1.97(e) or fee under 37 C.F.R. § 1.17(p) is required.

In compliance with the concise explanation requirement under 37 C.F.R. § 1.98(a)(3) for foreign language documents. Applicant encloses herewith a copy of the International Search Report PCT/JP03/008020 dated October 15, 2003, together with an English-language version of that portion of the report indicating the degree of relevance found by the foreign patent office.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicant does not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

Respectfully submitted,

  
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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Cor. 40/511098

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|------------------------|--|
| Application Number     | National Stage Entry based on<br>PCT/JP2003/008020 |
| Confirmation Number    | Not yet assigned                                   |
| Filing Date            | October 14, 2004                                   |
| First Named Inventor   | Akira IDENO, et al.                                |
| Art Unit               | Not yet assigned                                   |
| Examiner Name          | Not yet assigned                                   |
| Attorney Docket Number | Q83564   |

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**U.S. PATENT DOCUMENTS**

| Examiner<br>Initials* | Cite<br>No. <sup>1</sup> | Document Number |   | Publication Date<br>MM-DD-YYYY | Name of Patentee or Applicant of Cited Document |
|-----------------------|--------------------------|-----------------|---|--------------------------------|---|
|                       |                          | Number          | Kind<br>Code <sup>2</sup><br>(if known) |                                |   |
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**FOREIGN PATENT DOCUMENTS**

| Examiner<br>Initials* | Cite<br>No. <sup>1</sup> | Foreign Patent Document      |                     |                                      | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document               | Translation <sup>6</sup> |
|-----------------------|--------------------------|------------------------------|---------------------|--------------------------------------|--------------------------------|--|--------------------------|
|                       |                          | Country<br>Code <sup>3</sup> | Number <sup>4</sup> | Kind Code <sup>5</sup><br>(if known) |                                |  |                          |
|                       |                          | JP                           | 2002-306182         | A                                    | 10/22/2002                     | TOYOTA CENTRAL RESEARCH<br>AND DEVELOPMENT<br>LABORATORIES, INC. |                          |
|                       |                          | JP                           | 2002-262883         | A                                    | 09/17/2002                     | SEKISUI CHEMICAL CO., LTD.                                       |                          |
|                       |                          | WO                           | 00/075346           | A1                                   | 12/14/2000                     | MEDICAL RESEARCH COUNCIL   |                          |
|                       |                          | JP                           | 2003-501064         | A                                    |                                | MEDICAL RESEARCH COUNCIL   |                          |

**NON PATENT LITERATURE DOCUMENTS**

| Examiner<br>Initials* | Cite<br>No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published. | Translation <sup>6</sup> |
|-----------------------|--------------------------|--|--------------------------|
|                       |                          | Ideno A. et al., The 28.3 kDa FK506 binding protein from a thermophilic archaeum, Methanobacterium thermoautotrophicum, protects the denaturation of proteins in vitro, Eur. J. biochem., 2000, Vol. 267 (11), pages 3139 to 3149                                |                          |
|                       |                          | Behrens S. et al., The SurA periplasmic PPIase lacking its parvulin domains functions in vivo and has chaperone activity EMBO J., 2001, Vol. 20 (1-2), pages 285 to 294  |                          |
|                       |                          | MARUYAMA T. et al., Archaeal peptidyl prolyl cistrans isomerases (PPIases), Front Biosci., 2000, Vol. 5, p. D821-836   |                          |
|                       |                          | Huang GC. Et al., Assisted folding of D-glyceraldehyde-3-phosphate dehydrogenase by trigger factor, protein sci., 2000, Vol. 9 (6), pages 1254 to 1261   |                          |
|                       |                          | Zarnt T. et al., Modular structure of the trigger factor required for high activity in protein folding, J. Mol. Biol., 1997, Vol. 271 (5), pages 827 to 837  |                          |
|                       |                          | Arie JP. Et al., Chaperone function of FkpA, a heat shock prolyl isomerase, in the periplasm of Escherichia coli, Mol. Microbiol., 2001 Vol. 39 (1), pages 199 to 210  |                          |
|                       |                          | Ratajczak T. et al., The cyclophilin component of the unactivated estrogen receptor contains a tetratricopeptide repeat domain and shares identity with p59 (FKBP59), J. Biol. Chem., 1993, Vol. 268 (18), pages 13187 to 13192                                  |                          |
|                       |                          | Pirkel F. et al., Functional analysis of the Hsp90-associated human peptidyl prolyl cis/trans isomerases FKBP51, FKBP52 and Cyp40, J. Mol. Biol., 2001, Vol. 308 (4), pages 795 to 806   |                          |
|                       |                          | Ramm K. et al., The periplasmic Escherichia coli peptidylprolylcis, trans-isomerase FkpA. II. Isomerase-independent chaperone activity in vitro, J. Biol. Chem., 2000, Vol. 275 (22), pages 17106 to 17113   |                          |

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|--------------------|-----------------|
| Examiner Signature | Date Considered |
|--------------------|-----------------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kind Codes of USPTO Patent Documents at www.uspto.gov, MPEP 901.04 or in the comment box of this document. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST. 3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to indicate here if English language Translation is attached.